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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,991	07/24/2003	Brig Barnum Elliott	BBNT-P01-036	1710
28120 7590 09/04/2007 FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER CAI, WAYNE HUU	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 09/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/625,991

Applicant(s)

ELLIOTT, BRIG BARNUM

Examiner

Wayne Cai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 26, 27 and 29 is/are allowed.
- 6) ☒ Claim(s) 23-25, 28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed May 10, 2007 have been fully considered but they are not persuasive.

With respect to independent claim 28, the Applicant argues on page 11 that Futernik does not teach or suggest a satellite that includes means for determining an orbital location of the satellite and means for transmitting the location of the satellite to the selected ground station. The Examiner respectfully disagrees. Firstly, the Examiner further notes that Futernik clearly teaches or suggests the network utilizes the Open Shortest Path First (OSPF) Internet Protocol (IP) to dynamically discover routes. The OSPF routing protocol and apriori knowledge of network topology (e.g., as a function of time or satellite geographical location) is utilized to enhance routing performance. In addition, paragraph 0034 of Futernik teaches or suggests the table including information relating to satellite geographic position, time, and link status. Since the network is capable of having the table including the satellite geographic position, it is obvious to one skilled in the art that the location of the satellite must be determined before storing or having the table as disclosed by Futernik. Secondly, paragraph 0035 of Futernik teaches or suggests transmitting a link-state update message to neighboring network nodes (e.g., satellites and/or ground stations) to update corresponding databases reads on transmitting the location of the satellite to the selected ground station.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Futernik (US 2003/0137930) in view of .

Regarding claim 23, Futernik discloses a method of operating a satellite network including backbone satellites and user satellites, the method comprising:

calculating network topology information based on the position information (paragraphs 0033, and 0034); and

creating inter-satellite links, via directional transmitters/receivers, between the backbone satellites based on the network topology information (paragraphs 0034, and 0035); and

communicating packet data through the satellite network over the inter-satellite links (paragraph 0035).

Futernik, however, does not specifically disclose receiving position information from the backbone satellites, the position information being calculated by the backbone satellites based on data measured by the backbone satellites.

In a similar endeavor, Capots discloses a space-based integrated multi-mission broadband architecture. Capots also discloses receiving position information from the backbone satellites, the position information being calculated by the backbone satellites based on data measured by the backbone satellites (paragraphs 0020-0023, and 0071).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Futernik in view of Capots.

The motivation/suggestion for doing so would have been to accurately locate the position of other satellites.

Regarding claims 24, and 25, Capots also discloses the position of the backbone satellites is orbital information or location information of the backbone satellites (paragraph 0021).

Regarding claim 30, even though the cited references do not specifically disclose wherein the position information includes Doppler shift information. However, this feature is known in the art because the Doppler shift information is useful in determining or compensating the Doppler shift effect.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Futernik (US 2003/0137930).

Regarding claim 28, Futernik discloses a method, and a means for adding a satellite into a satellite network, the method comprising:

means for determining an orbital location of the satellite (paragraph 0027 and 0034);

means for selecting a ground station with which to communicate based on the determined orbital location (paragraph 0023);

means for receiving at least one of location and orbital information of other satellites in the satellite network (i.e., the topology of the network) ; and

means for transmitting the location of the satellite to the selected ground station (paragraphs 0033-0035).

Terminal Disclaimer

The terminal disclaimer filed on May 10, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,847,867 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

Claims 1-9, 10-17, 26, 27, and 29 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1-9, since the Applicant timely filed Terminal Disclaimer to overcome the double patenting rejections with respect to these claims; therefore, claims 1-9 are in condition for allowance.

Regarding independent claim 10, the prior arts of records or prior arts found fail to teach or suggest determining the location of the satellite and transmitting by the satellite the location of location of the satellite to the selected ground station to add the satellite to the satellite network. Therefore, the Examiner allows this claimed limitation in combination with all other limitations recited within claim for the reasons set forth above and in Remarks dated May 10, 2007. Dependent claims 11-17, and 29 depend either directly or indirectly on independent claim 10 are also allowable for the same reasons set forth above.

Regarding independent claim 26, this claim is allowable as the Applicant amends and includes allowable subject matter indicated in previous office action dated February 09, 2007.

Claim 27 is directly dependent upon independent claim 26; therefore claim 27 is also allowable for at least the same reasons set forth above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday - Thursday from 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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